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Attorney Docket No. S63.2Q-7132-US02

Remarks

This Amendment is in response to the Office Action dated **February 13, 2006**. Claims 47-67 are pending in this application. The Office Action rejected claims 47-67 under 35 USC § 103 over Forman (US 5826588) in view of Wand et al. (US 5525388; hereinafter "Wand"), or over Wand in view of Forman. The Office Action also included a double patenting rejection.

By this Amendment, claims 60, 62 and 63 are amended for clarification purposes only. Applicants reserve the right to prosecute any cancelled subject matter in a subsequent patent application claiming priority to the immediate application. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Interview Acknowledgement

Applicants thank Examiner Bui for the courtesies extended to Applicant's representative during the telephonic interview of May 10th, 2006. During the interview, the differences between the claims and the Wand and Forman references were discussed. Examiner Bui agreed that the pending claims as clarified herein appeared to be patentable over the applied references. Specifically, the references did not discuss maintaining the balloon below a glass transition temperature of the thermoplastic material, as recited in claim 47, or performing grinding or chemical etching on a balloon (i.e. not a parison), as recited in claim 60.

Claim Rejections

The Office Action rejected claims 47-67 under 35 USC § 103 over Forman in view of Wand or over Wand in view of Forman. These rejections are respectfully traversed.

Independent claim 47

Applicants assert that the applied references do not disclose or suggest removing material from a balloon "while maintaining the temperature of the entire balloon below about the glass transition temperature of the thermoplastic material," as recited in claim 47.

As previously discussed at length in the Amendment filed August 18, 2005, Wand teaches providing a parison (i.e. a balloon preform) of predetermined shape and blow molding

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the parison to form a balloon. See Figure 5 and column 4, lines 7-23. Any shaping operations disclosed in Wand are performed on the parison prior to blow molding. See e.g. column 2, lines 45-53. Wand does not disclose or suggest removing material from a balloon, as required by claim 47.

In an attempt to further distinguish the pending claims over Wand, Applicants previously added dependent claim 65, which specifies that the step of providing a balloon further comprises providing a parison and stretching the parison to form the balloon. However, dependent claim 65 was also rejected.

Forman teaches the use of laser ablation to remove material from a balloon.

Neither Wand nor Forman discuss a glass transition temperature of the balloon material, or maintaining the temperature of the balloon below the glass transition temperature. Therefore, the rejections must rely on inherency in order to be tenable.

“To establish inherency, extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” See *In re Robertson*, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (emphasis added).

“In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

The Office Action has not provided any prior art reference that discusses a glass transition temperature. The Office Action has not provided any basis to support the assertion that maintaining a balloon below its glass transition temperature necessarily flows from the teachings of the applied references. At most, the Office Action makes a statement that providing a coolant at a cutting site when machining with a “tool such as a grinder/a lathe/a drill” is well known, and that, inherently, providing a coolant meets the glass transition temperature limitations. See Office Action page 3, last paragraph. However, the assertion is predicated upon hindsight reasoning as the prior art references do not even mention “a grinder,” “a lathe” or “a drill.”

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Further with respect to Forman, which is the only applied reference that discusses removing material from a balloon that has already been formed, the Office Action states that Forman discloses “laser burning the outside surface of the balloon.” It is expected that “laser burning” would raise the temperature of balloon material above the glass transition temperature. Therefore, it is entirely possible that Forman inherently teaches away from the “below” the glass transition temperature limitations of claim 47.

In light of the above remarks, Applicants assert that the rejection fails to establish that maintaining the temperature of the balloon below about the glass transition temperature is inherent in the applied references. Therefore, the applied references do not disclose or suggest all of the limitations of independent claim 47, and a *prima facie* case of unpatentability has not been presented. Claims 48-59 and 64-66 depend from claim 47 and are patentable for at least the reasons discussed with respect to claim 47. Accordingly, Applicants request withdrawal of the rejection of claims 47-59 and 64-66.

Independent claim 60

Claim 60 is amended for clarification purposes as discussed with the Examiner in the aforementioned telephonic interview.

The applied references do not teach or suggest removing material from a balloon using a “process selected from the group consisting of grinding, chemical etching and any combination thereof,” as recited in claim 60.

As previously asserted, Wand only teaches the shaping of a parison, and does not disclose or suggest removing material from a balloon. A person of ordinary skill in the art would understand that a parison is by definition a precursor to a balloon, and therefore is not a balloon. Removing material from the parison prevents the removed material from ever becoming part of a balloon.

For the purposes of the Wand invention, the parison and the balloon cannot be considered equivalent. A person of ordinary skill in the art would recognize that a parison is easier to machine than a balloon because the greater thickness of the parison imparts greater structural integrity. Further, the subsequent balloon forming step (i.e. blow molding) performed on the parison allows for mold-smoothing of any surface irregularities introduced during

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machining of the parison. For at least the reasons that balloons are thinner and that mold-smoothing does not occur after balloon formation, a person of ordinary skill in the art would not consider it obvious to remove material from the balloon rather than the parison as taught by Wand.

Forman teaches material removal from a balloon using laser ablation. See column 7, lines 28-34. Forman does not disclose or suggest the claimed methods of grinding or chemical etching.

A person of ordinary skill in the art viewing Wand and Forman may be motivated to provide a shaped parison and to blow mold the parison to form the balloon, as taught by Wand, and then may be motivated to thin the balloon using laser ablation as taught by Forman. However, the applied references do not teach grinding or chemically etching a balloon that has already been formed, as required by claim 60, and there is no motivation to modify either reference to arrive at claim 60 absent the use of impermissible hindsight.

Therefore, Applicants assert that independent claim 60 is patentable over Wand and Forman. Claims 61-63 and 67 depend from claim 60 and are patentable for at least the reasons discussed with respect to claim 60. Accordingly, Applicants request withdrawal of the rejection of claims 60-63 and 67.

Extrinsic Evidence/Affidavit Request

In the event that the application is not allowed and further rejections are made, Applicants request that any teachings not explicitly contained within the applied prior art references be clearly supported with extrinsic evidence, and that such extrinsic evidence be provided to the Applicants.

To the extent that any rejection is based upon assertions or 'information' within the personal knowledge of the Examiner, Applicant hereby requests that the Examiner support the rejections with an affidavit in accordance with 37 CFR § 1.104(d)(2).

Double Patenting

The Office Action rejected "at least claims 47 and 51" on the grounds of obviousness-type double patenting over various claims of US 6193738. These rejections are

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traversed.

Applicants previously submitted a terminal disclaimer on March 4, 2005, which disclaims the terminal part of any patent granted on the instant application which would extend beyond the expiration date of US 6193738. Therefore, Applicants assert that the double patenting rejection is moot, and request withdrawal of the rejection.

Conclusion

Based on at least the foregoing amendments and remarks, Applicants respectfully submit this application is in condition for allowance. Favorable consideration and prompt allowance of claims 47-67 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

VIDAS, ARRETT & STEINKRAUS

Date: June 16, 2006

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